



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,930	09/15/2003	Avraham Shekalim	08875.0005-01000	8392
22852	7590	05/04/2004	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005			LAMB, BRENDA A	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,930

Applicant(s)

Shekalim et al

Examiner

LAMB

Group Art Unit

1734

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 12/17/2003
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-32 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-15, 19-23 and 27-32 is/are rejected.
- ☒ Claim(s) 16-18 and 24-26 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 12/17/2003 ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

Office Action Summary

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 5-8 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Castro et al 6,395,326.

Castro et al teaches the design of an apparatus for applying a patterned coating to a substrate which is comprised of the following structural elements: at least object

holding element 14 to hold the object while the coating is applied thereto; at least optical scanning device such that coating may be applied to select surfaces of the substrate (column 5 lines 1-10, column 10 lines 8-53); at least one coating applicator 26 to coat at least a portion of the object; at least one fluid delivery system which includes reservoir 24; a processing unit which includes CPU 20 to selectively activate the coating applicator; and drive system configured to provide relative motion between the substrate and applicator. Thus every element of claim 1 is taught by Castro et al. With respect to claim 2, Castro et al in Figures 2B and 6B indicate rotating by the holder assembly 14 (see column 8 lines 40-43). With respect to claim 5, Castro et al teaches at least one coating applicator includes a pressure-pulse actuated drop-ejection system with at least one nozzle (see column 8 line 54 to column 9 line 37). With respect to claims 6-8, Castro et al teaches that the spatial relationship between the coating applicator and object is variable via holder motion control system 16 and dispenser motion control system 32 such that spatial relationship and displacement set forth in claim 7-8 may be obtained. With respect to claim 11, Castro et al apparatus is capable of coating an object within scope of the claim. With respect to claim 12, Castro et al teaches the processing unit which includes CPU 20 accepts input from the holder motion control system 16 and dispenser motion control system 32. The Castro et al processing unit changes operational parameters of the coating device to apply the desired pattern on the substrate.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Castro et al.

Castro et al is applied for the reasons noted above. Castro et al in Figure 4A shows that the dispenser 22 is coupled to the optical scanning device which includes elements 46, 44. Castro et al teaches that the dispenser 22 is displaceable relative to the object-holding element. Therefore, it would have been obvious to modify the Castro et al apparatus such that the optical scanning device and coating applicator are deployed on a displaceable applicator base such as the driving component 34 in order to decrease the compactness or size requirements of the apparatus.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Castro et al in view Zhong et al.

Castro et al is applied for the reasons noted above. Castro et al teaches at column 19 lines 4-15 applying a second composition which is different than the first composition. Castro et al fails to disclose the fluid delivery systems are equal in number to the plurality of coating applicators. However, if one desires to apply two different compositions, it would have been obvious to modify the Castro et al apparatus by providing separate applicators in communication with separate fluid delivery systems since Zhong et al teaches an ink jet printing head having plural applicators wherein each applicator, a group or set of nozzles, is in fluid communication with its respective fluid delivery system or source for the obvious advantage of greater control of the coating process (see Zhong et al at column 6 line 7 to column 7 line 3).

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castro et al in view of Brewer et al.

Castro et al is applied for the reasons noted above. Castro et al shows the object-holding element supports the objects at two different regions along a length of the object. Castro et al fails to teach the object holding element is implemented as two object holding elements. However, it would have been obvious to modify the Castro et al apparatus by using an end effect or of a robotic arm having a two object-holding elements 22, 24 to simultaneously support two different regions along the length of the object such as taught by Brewer et al for the obvious reason to enable one to firmly grip or hold the object. With respect to claim 4, Castro et al shows that the two object-holding elements are mechanically linked via actuator 26.

Claims 13-15, 19-23, 27, 30, 31 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castro et al in view of Smith et al.

Castro et al is applied for the reasons noted above. Castro et al fails to teach elements of the claimed coating apparatus, specifically the recited elements-object-holding element, coating applicator, optical scanning device, drive system and fluid delivery system are deployed within a housing that includes an application compartment. However, it would have been obvious to modify the Castro et al apparatus by providing the above cited elements within a housing that include a compartment since in treating and coating medical devices is known to enclose the coating apparatus within housing which includes a compartment such as taught by Smith et al for the taught advantage of minimizing risk of contamination of the medical device and minimizing exposure of the operator to treating chemicals used in the coating process. With respect to claim 14, Smith et al shows that housing for his

coating apparatus includes a base section and detachable section or hood 510 as shown in figure 3. With respect to claim 19, Smith et al uses using a filtering system to help create an environment within the housing which is clean or substantially sterile. With respect to claim 15, Smith et al shows in figure 3 that portions of the hood 510 or detachable section and base section together define a compartment within the housing. With respect to claim 20, Smith et al shows the coating apparatus and fluid delivery system or pump within housing of the compartment of the housing which is removable. With respect to claim 21, the same rejections to claim 13 is applied here. Further, Smith et al shows that the applicator and object holding device are located within a compartment of the housing. Smith et al shows elements of the coating apparatus are mounted on displaceable bases. Therefore, it would have been given the modified Castro et al apparatus obvious to arrange the Castro et al coating applicator and optical scanning device which are coupled to one another as discussed above on a displaceable base since Smith et al shows elements of the coating apparatus are arranged on a displaceable base or detachable base for the obvious reason to facilitate maintenance. With respect to claim 22, the same rejection applied to claim 14 is applied here. With respect to claim 23, the same rejection applied to claim 15 is applied here. With respect to claim 27, the same rejection applied to claim 2 is applied here. With respect to claim 30, the same rejection applied to claim 5 is applied here. With respect to claim 33, the same rejection applied to claim 20 is used here. Smith et al shows in his figures that elements of the compartment are detachably connected to one another to facilitate maintenance. With respect to claim 34, the same rejection applied

Art Unit: 1734

to claims 6-7 is applied here. With respect to claim 35, the same rejection applied to claim 11 is used here. With respect to claim 36, the same rejection applied to claim 12 is used here.

Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castro et al in view of Brewer et al and Smith et al.

The same rejection applied to claims 4-5 is applied here.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Castro et al in view of Brewer et al and Zhong et al.

The same rejection applied to claim 10 is applied here.

Claims 16-18 and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday with alternate Wednesdays off.

Lamb/tgd

April 13, 2004


BRENDA A. LAMB
PRIMARY EXAMINER